

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A biologically pure ~~bacterial culture~~ possessing ~~all of the identifying characteristics of~~ *Dehalococcoides* isolate BAV1 capable of using, as a metabolic electron acceptor, at least one compound selected from the group consisting of *trans*-dichloroethene and vinyl chloride.

2. (Currently amended) The biologically pure ~~culture~~ *Dehalococcoides* isolate of claim 1, which is isolate BAV1 (ATCC Accession No. _____).

3. (Currently amended) A method of remediating a substrate comprising a halogenated compound,

wherein said method ~~comprising~~ comprises inoculating said substrate with a ~~microorganism possessing all of the identifying characteristics of~~ an effective amount of a *Dehalococcoides* isolate BAV1 capable of using, as a metabolic electron acceptor, at least one compound selected from the group consisting of *trans*-dichloroethene and vinyl chloride.

4. (Currently amended). The method of claim 3, wherein said halogenated compound is a ~~member~~ selected from the group consisting of chloroethenes, vinyl halides, and haloalkanes.

5. (Currently amended) The method of claim 4 wherein said halogenated compound is a dichloroethene ~~or vinyl chloride~~.

6. (Currently amended) The method of claim 5 wherein said dichloroethene (DCE) is a ~~member~~ selected from the group consisting of *cis*-DCE, *trans*-DCE, and 1,1-DCE.

7. (Currently amended) The method of claim ~~[[5]]~~ 4 wherein said halogenated compound is ~~[[VC]]~~ a vinyl-halide.

8. (Currently amended) The method of claim [[4]] 7 wherein said vinyl-halide is selected from the group consisting of [[VC]] vinyl chloride and vinyl bromide.

9. (Currently amended) A method of remediating a substrate comprising a halogenated compound,
wherein said method ~~comprising~~ comprises inoculating said substrate with a ~~microorganism that is~~ an effective amount of *Dehalococcoides* isolate BAV1 (ATCC Accession No. _____).

10. (Currently amended) The method of claim 9 wherein said ~~halogen compound~~ halogenated compound is ~~a member~~ selected from the group consisting of chloroethenes, vinyl halides, and haloalkanes.

11. (Original) The method of claim 10 wherein said halogenated compound is a dichloroethene.

12. (Currently amended) The method of claim 11 wherein said dichloroethene (DCE) is a ~~member~~ selected from the group consisting of *cis*-DCE, *trans*-DCE, and 1,1-DCE.

13. (Currently amended) The method of claim [[11]] 9 wherein said halogenated compound is [[VC]] a vinyl-halide.

14. (Currently amended) The method of claim [[9]] 13 wherein said vinyl-halide is a ~~member~~ selected from the group consisting of [[VC]] vinyl chloride and vinyl bromide.

15. (New) The method of claim 14 wherein the vinyl-halide is vinyl chloride.

16. (New) The method of claim 8 wherein the vinyl-halide is vinyl chloride.

17. (New) The biologically pure *Dehalococcoides* isolate of claim 1, wherein the *Dehalococcoides* isolate is capable of using at least *trans*-dichloroethene as a metabolic electron acceptor.

18. (New) The biologically pure *Dehalococcoides* isolate of claim 1, wherein the *Dehalococcoides* isolate is capable of using at least vinyl chloride as a metabolic electron acceptor.

19. (New) The biologically pure *Dehalococcoides* isolate of claim 1, wherein the *Dehalococcoides* isolate is additionally capable of using, as a metabolic electron acceptor, a dichloroethene (DCE) selected from the group consisting of *cis*-DCE and 1,1-DCE.

20. (New) The biologically pure *Dehalococcoides* isolate of claim 1, wherein the *Dehalococcoides* isolate is additionally capable of using vinyl bromide as a metabolic electron acceptor.

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